

WHAT IS CLAIMED IS:

1. A method of manufacturing an image display device comprising successively transferring a panel member, which constitutes a panel of an image display device, to a plurality of reduced-pressure processing chambers each comprising temperature control means, and performing a plurality of processings of the panel member under temperature control to form a panel;

wherein the plurality of processing chambers include a baking chamber for baking the panel member, and a sealing chamber for sealing the panel member transferred thereto after baking, and the processing in each of the plurality of processing chambers is performed so that the temperature of the panel member in each of the processing chambers is set to a temperature of not more than that of the panel member in the previous chamber in the transfer process.

2. A method of manufacturing an image display device comprising successively transferring a panel member, which constitutes a panel of the image display device, to a plurality of reduced-pressure processing chambers each comprising temperature control means, and performing a plurality of processings of the panel member under temperature control to form a panel;

wherein the plurality of processing chambers include a baking chamber for baking the panel member, a gettering chamber for gettering the panel member transferred thereto after baking, and a sealing chamber for sealing the panel member transferred thereto after gettering, and the processing in each of the plurality of processing chambers is performed so that the temperature of the panel member in each of the processing chambers is set to a temperature of not more than that of the panel member in the previous chamber in the transfer process.

3. A method of manufacturing an image display device according to Claim 2, wherein the inside of the gettering chamber is further gettered.

4. A method of manufacturing an image display device according to Claim 2, wherein the plurality of the processing chambers further include a front chamber adjacent to the gettering chamber, to which the panel member is transferred before transfer to the gettering chamber after baking in the baking chamber, the insides of the front chamber and the gettering chamber being set to 10^{-4} Pa or less.

5. A method of manufacturing an image display device

comprising successively transferring a panel member, which constitutes a panel of the image display device, to a plurality of reduced-pressure processing chambers each comprising temperature control means, and performing a plurality of processings of the panel member under temperature control to form a panel;

wherein the plurality of processing chambers include a baking chamber for baking the panel member, a surface cleaning chamber for cleaning the surface of the panel member transferred thereto after baking, a gettering chamber for gettering the panel member transferred thereto after surface cleaning, and a sealing chamber for sealing the panel member transferred thereto after gettering, and the processing in each of the plurality of processing chambers is performed so that the temperature of the panel member in each of the processing chambers is set to a temperature of not more than that of the panel member in the previous chamber in the transfer process.

6. A method of manufacturing an image display device according to Claim 5, wherein the inside of the gettering chamber is further gettered.

7. A method of manufacturing an image display device according to Claim 5, wherein the plurality of the

processing chambers further include a front chamber adjacent to the gettering chamber, to which the panel member is transferred before transfer to the gettering chamber after baking in the baking chamber, the insides of the front chamber and the gettering chamber being set to 10^{-4} Pa or less.

8. A method of manufacturing an image display device according to Claim 5, wherein the plurality of the processing chambers further include a front chamber adjacent to the gettering chamber, to which the panel member is transferred before transfer to the gettering chamber after surface cleaning in the surface cleaning chamber, the insides of the front chamber and the gettering chamber being set to 10^{-4} Pa or less.

9. A method of manufacturing an image display device according to Claim 5, wherein the surface cleaning chamber is adjacent to the gettering chamber, the insides of the surface cleaning chamber and the gettering chamber being set to 10^{-4} Pa or less.

10. A method of manufacturing an image display device comprising successively transferring a panel member, which constitutes a panel of the image display device, to a

plurality of reduced-pressure processing chambers each comprising temperature control means, and performing a plurality of processings of the panel member under temperature control to form a panel;

wherein the plurality of processing chambers include a baking chamber for baking the panel member, a surface cleaning chamber for cleaning the surface of the panel member transferred thereto after baking, a pre-gettering chamber for gettering the inside of the processing chamber to which the panel member is transferred after surface cleaning, a gettering chamber for gettering the panel member transferred thereto after pre-gettering, and a sealing chamber for sealing the panel member transferred thereto after gettering, and the processing in each of the plurality of processing chambers is performed so that the temperature of the panel member in each of the processing chambers is set to a temperature of not more than that of the panel member in the previous chamber in the transfer process.

11. A method of manufacturing an image display device according to Claim 10, wherein the plurality of the processing chambers include a front chamber adjacent to the pre-gettering chamber, to which the panel member is transferred before transfer to the pre-gettering chamber after surface cleaning in the surface cleaning chamber, the

insides of the front chamber, the pre-gettering chamber and the gettering chamber being set to 10^{-4} Pa or less.

12. A method of manufacturing an image display device according to Claim 10, wherein the surface cleaning chamber is adjacent to the pre-gettering chamber, the insides of the surface cleaning chamber, the pre-gettering chamber and the gettering chamber being set to 10^{-4} Pa or less.

13. A method of manufacturing an image display device according to Claim 5 or 10, wherein surface cleaning is processing for cleaning the surface of the panel member by irradiating the surface with an electron beam.

14. A method of manufacturing an image display device according to Claim 5 or 10, wherein surface cleaning is processing for cleaning the surface of the panel member by irradiating the surface with ions.

15. A method of manufacturing an image display device according to Claim 5 or 10, wherein surface cleaning is processing for cleaning the surface of the panel member by irradiating the surface with an ultraviolet ray.

16. A method of manufacturing an image display device

according to Claim 5 or 10, wherein surface cleaning is processing for cleaning the surface of the panel member by irradiating the surface with plasma.

17. A method of manufacturing an image display device comprising successively transferring a panel member, which constitutes a panel of the image display device, to a plurality of reduced-pressure processing chambers each comprising temperature control means, and performing a plurality of processings of the panel member under temperature control to form a panel;

wherein the plurality of processing chambers include a baking chamber for baking the panel member, a pre-gettering chamber for gettering the inside of the processing chamber to which the panel member is transferred after baking, a gettering chamber for gettering the panel member transferred thereto after pre-gettering, and a sealing chamber for sealing the panel member transferred thereto after gettering, and the processing in each of the plurality of processing chambers is performed so that the temperature of the panel member in each of the processing chambers is set to a temperature of not more than that of the panel member in the previous chamber in the transfer process.

18. A method of manufacturing an image display device

according to Claim 17, wherein the plurality of the processing chambers include a front chamber adjacent to the pre-gettering chamber, to which the panel member is transferred before transfer to the pre-gettering chamber after baking in the baking chamber, the insides of the front chamber, the pre-gettering chamber and the gettering chamber being set to 10^{-4} Pa or less.

19. A method of manufacturing an image display device according to any one of Claims 1, 2, 5, 10 and 17, wherein the sealing temperature of the panel member in the sealing chamber is set to be not more than the baking temperature of the panel member in the baking chamber.

20. A method of manufacturing an image display device according to any one of Claims 2, 5, 10 and 17, wherein the gettering temperature of the panel member in the gettering chamber is set to be not more than the baking temperature of the panel member in the baking chamber.

21. A method of manufacturing an image display device comprising successively transferring a panel member, which constitutes a panel of the image display device, to a plurality of reduced-pressure processing chambers each comprising temperature control means, and performing a

plurality of processings of the panel member under temperature control to form a panel;

wherein the plurality of processing chambers include a baking chamber for baking the panel member, a cooling chamber for cooling the panel member transferred thereto after baking, and a sealing chamber for sealing the panel member transferred thereto after cooling, and the processing in each of the plurality of processing chambers is performed so that the temperature of the panel member in each of the processing chambers is set to a temperature of not more than that of the panel member in the previous chamber in the transfer process.

22. A method of manufacturing an image display device comprising successively transferring a panel member, which constitutes a panel of the image display device, to a plurality of reduced-pressure processing chambers each comprising temperature control means, and performing a plurality of processings of the panel member under temperature control to form a panel;

wherein the plurality of processing chambers include a baking chamber for baking the panel member, a cooling chamber for cooling the panel member transferred thereto after baking, a gettering chamber for gettering the panel member transferred thereto after cooling, and a sealing

chamber for sealing the panel member transferred thereto after gettering, and the processing in each of the plurality of processing chambers is performed so that the temperature of the panel member in each of the processing chambers is set to a temperature of not more than that of the panel member in the previous chamber in the transfer process.

23. A method of manufacturing an image display device according to Claim 22, wherein the inside of the gettering chamber is further gettered.

24. A method of manufacturing an image display device according to Claim 22 or 23, wherein the plurality of the processing chambers include a front chamber adjacent to the gettering chamber, to which the panel member is transferred before transfer to the gettering chamber after cooling in the cooling chamber, the insides of the front chamber and the gettering chamber being set to 10^{-4} Pa or less.

25. A method of manufacturing an image display device according to Claim 22 or 23, wherein the cooling chamber is adjacent to the gettering chamber, the insides of the cooling chamber and the gettering chamber being set to 10^{-4} Pa or less.

26. A method of manufacturing an image display device according to Claim 25, wherein the inside of the cooling chamber is gettered.

27. A method of manufacturing an image display device according to Claim 22, wherein surface cleaning of the panel member is performed in the cooling chamber.

28. A method of manufacturing an image display device comprising successively transferring a panel member, which constitutes a panel of the image display device, to a plurality of reduced-pressure processing chambers each comprising temperature control means, and performing a plurality of processings of the panel member under temperature control to form a panel;

wherein the plurality of processing chambers include a baking chamber for baking the panel member, a cooling chamber for cooling the panel member transferred thereto after baking, a surface cleaning chamber for cleaning the surface of the panel member transferred thereto after cooling, a gettering chamber for gettering the panel member transferred thereto after surface cleaning, and a sealing chamber for sealing the panel member transferred thereto after gettering, and the processing in each of the plurality of processing chambers is performed so that the temperature

of the panel member in each of the processing chambers is set to a temperature of not more than that of the panel member in the previous chamber in the transfer process.

29. A method of manufacturing an image display device according to Claim 28, wherein the plurality of the processing chambers include a front chamber adjacent to the gettering chamber, to which the panel member is transferred before transfer to the gettering chamber after surface cleaning in the surface cleaning chamber, the insides of the front chamber and the gettering chamber being set to 10^{-4} Pa or less.

30. A method of manufacturing an image display device according to Claim 28, wherein the surface cleaning chamber is adjacent to the gettering chamber, the insides of the surface cleaning chamber and the gettering chamber being set to 10^{-4} Pa or less.

31. A method of manufacturing an image display device according to Claim 28, wherein the inside of the gettering chamber is further gettered.

32. A method of manufacturing an image display device comprising successively transferring a panel member, which

constitutes a panel of the image display device, to a plurality of reduced-pressure processing chambers each comprising temperature control means, and performing a plurality of processings of the panel member under temperature control to form a panel;

wherein the plurality of processing chambers include a baking chamber for baking the panel member, a cooling chamber for cooling the panel member transferred thereto after baking, a surface cleaning chamber for cleaning the surface of the panel member transferred thereto after cooling, a pre-gettering chamber for pre-gettering the chamber to which the panel transfer is transferred after surface cleaning, a gettering chamber for gettering the panel member transferred thereto after pre-gettering, and a sealing chamber for sealing the panel member transferred thereto after gettering, and the processing in each of the plurality of processing chambers is performed so that the temperature of the panel member in each of the processing chambers is set to a temperature of not more than that of the panel member in the previous chamber in the transfer process.

33. A method of manufacturing an image display device according to Claim 32, wherein the plurality of the processing chambers include a front chamber adjacent to the

pre-gettering chamber, to which the panel member is transferred before transfer to the pre-gettering chamber after surface cleaning in the surface cleaning chamber, the insides of the front chamber, the pre-gettering chamber, and the gettering chamber being set to 10^{-4} Pa or less.

34. A method of manufacturing an image display device according to Claim 32, wherein the surface cleaning chamber is preferably adjacent to the pre-gettering chamber, the insides of the surface cleaning chamber, the pre-gettering chamber and the gettering chamber being set to 10^{-4} Pa or less.

35. A method of manufacturing an image display device according to Claim 28 or 32, wherein surface cleaning is processing for cleaning the surface of the panel member by irradiating the surface with an electron beam.

36. A method of manufacturing an image display device according to Claim 28 or 32, wherein surface cleaning is processing for cleaning the surface of the panel member by irradiating the surface with ions.

37. A method of manufacturing an image display device according to Claim 28 or 32, wherein surface cleaning is

processing for cleaning the surface of the panel member by irradiating the surface with an ultraviolet rays.

38. A method of manufacturing an image display device according to Claim 28 or 32, wherein surface cleaning is processing for cleaning the surface of the panel member by irradiating the surface with plasma.

39. A method of manufacturing an image display device comprising successively transferring a panel member, which constitutes a panel of the image display device, to a plurality of reduced-pressure processing chambers each comprising temperature control means, and performing a plurality of processings of the panel member under temperature control to form a panel;

wherein the plurality of processing chambers include a baking chamber for baking the panel member, a cooling chamber for cooling the panel member transferred thereto after baking, a pre-gettering chamber for pre-gettering the processing chamber to which the panel transfer is transferred after cooling, a gettering chamber for gettering the panel member transferred thereto after pre-gettering, and a sealing chamber for sealing the panel member transferred thereto after gettering, and the processing in each of the plurality of processing chambers is performed so

that the temperature of the panel member in each of the processing chambers is set to a temperature of not more than that of the panel member in the previous chamber in the transfer process.

40. A method of manufacturing an image display device according to Claim 39, wherein the plurality of the processing chambers include a front chamber adjacent to the pre-gettering chamber, to which the panel member is transferred before transfer to the pre-gettering chamber after cooling in the cooling chamber, the insides of the front chamber, the pre-gettering chamber, and the gettering chamber being set to 10^{-4} Pa or less.

41. A method of manufacturing an image display device according to Claim 39, wherein the cooling chamber is adjacent to the pre-gettering chamber, the insides of the cooling chamber, the pre-gettering chamber and the gettering chamber being set to 10^{-4} Pa or less.

42. An apparatus for manufacturing an image display device comprising a plurality of processing chambers each comprising temperature control means, to which a panel member constituting a panel of an image display device is transferred for performing a plurality of processings of the

panel member under temperature control to manufacture an image display device;

wherein the temperature control means in each of the plurality of processing chambers sets the temperature of the panel member in each of the processing chambers to a temperature of not more than that of the panel member in the previous chamber in the transfer process.

43. An apparatus for manufacturing an image display device according to Claim 42, wherein the plurality of the processing chambers include a baking chamber for baking the panel member, and a sealing chamber for sealing the panel member transferred thereto after baking in the baking chamber.

44. An apparatus for manufacturing an image display device according to Claim 42, wherein the plurality of the processing chambers include a gettering chamber for forming a getter film on the panel member, and a sealing chamber for sealing the panel member after gettering in the gettering chamber.

45. An apparatus for manufacturing an image display device according to Claim 42, wherein the plurality of the processing chambers include a surface cleaning chamber for cleaning the surface of the panel member, a gettering

chamber for forming a getter film on the panel member transferred thereto after surface cleaning in the surface cleaning chamber, and a sealing chamber for sealing the panel member transferred thereto after gettering in the gettering chamber.

46. An apparatus for manufacturing an image display device according to Claim 42, wherein the plurality of the processing chambers include a surface cleaning chamber for cleaning the surface of the panel member, a pre-gettering chamber for pre-gettering the panel member transferred thereto after surface cleaning in the surface cleaning chamber, a gettering chamber for forming a getter film on the panel member transferred thereto after pre-gettering in the pre-gettering chamber, and a sealing chamber for sealing the panel member transferred thereto after gettering in the gettering chamber.

47. An apparatus for manufacturing an image display device according to Claim 42, wherein heat shield members are provided between the respective processing chambers.

48. An apparatus for manufacturing an image display device according to Claim 47, wherein the heat shield members comprise a reflecting metal.